

What is claimed is:

1. An inkjet device comprising:

an inkjet head having multiple nozzles arranged at
equally spaced intervals in a row, the inkjet head ejecting
5 ink droplets from the multiple nozzles onto target pixels on
a medium;

a data generating unit that generates both ejection
data and timing control data from pattern data;

a drive-waveform-generation-signal generating unit
10 that generates a drive-waveform generation signal in
accordance with the timing control data;

a transfer-signal generating unit that generates a
transfer signal in accordance with the timing control data;

a drive-waveform generating unit that generates a
15 drive waveform in accordance with the drive-waveform
generation signal;

an ejection-data transferring unit that transfers the
ejection data in accordance with the transfer signal; and

a control unit that controls, based on the drive
20 waveform and the ejection data transferred from the
ejection-data transferring unit, the inkjet head to
selectively eject ink droplets from the multiple nozzles.

2. The inkjet device according to claim 1, further
comprising a conveying unit that conveys the medium in a
25 first direction relative to the inkjet head, wherein:

a plurality of lines are defined on the medium, each of the plurality of lines extending in a second direction that is orthogonal to the first direction;

the plurality of lines has an interval in the first
5 direction that is smaller than a minimum ejection frequency of each of the multiple nozzles; and

the timing control data are defined for each of the plurality of lines, and include drive-waveform generation timing data, which determine whether to generate the drive
10 waveform for the each of the plurality of lines, and ejection-data transfer timing data, which determine whether to transfer the ejection data for each of the plurality of lines.

3. The inkjet device according to claim 1, further
15 comprising a conveying unit that conveys the medium in a first direction relative to the inkjet head, wherein:

a plurality of lines are defined on the medium, each of the plurality of lines extending in a second direction that is orthogonal to the first direction;

20 the plurality of lines has an interval in the first direction that is smaller than a minimum ejection frequency of each of the multiple nozzles;

the timing control data are defined for each of the plurality of lines;

25 the drive-waveform generating unit generates the drive

waveform only at lines which include at least one of the target pixels; and

the ejection-data transferring unit transfers the ejection data only at lines which include at least one of the target pixels and at which the ink droplets are ejected
5 based on ejection data different from previously transferred ejection data.

4. The inkjet device according to claim 1, further comprising a data-rotation-instructing-signal generating
10 unit that generates a data-rotation instructing signal in accordance with the timing control data, wherein the control unit includes an ejection shift register that stores ejection data, at least one storage shift register that stores ejection data, and a data rotating unit that rotates
15 the ejection data between the ejection shift register and the at least one storage shift register in accordance with the data-rotation instructing signal.

5. The inkjet device according to claim 4, wherein the control unit controls the inkjet head based on the
20 ejection data stored in the ejection shift register.

6. A control method for controlling an inkjet device, the control method comprising the steps of:

a) generating ejection data and timing control data from pattern data;

25 b) generating a drive-waveform generation signal in

accordance with the timing control data;

c) generating a transfer signal in accordance with the timing control data;

d) transferring the ejection data to a register in accordance with the transfer signal;

e) generating a drive waveform in accordance with the drive-waveform generation signal; and

f) controlling, based on the drive waveform generated in step d) and the ejection data stored in the register, an inkjet head to selectively eject ink droplets from multiple nozzles of the inkjet head onto target pixels on a medium.

7. The control method according to claim 6, wherein the timing control data are defined for each of a plurality of lines defined on the medium, and include drive-waveform generation timing data and ejection-data transfer timing data, the drive-waveform generation timing data determining whether to generate the drive waveform for the each of the plurality of lines, the ejection-data transfer timing data determining whether to transfer the ejection data for each of the plurality of lines, each of the plurality of lines extending in a first direction that is orthogonal to a second direction in which the medium is conveyed relative to the inkjet head, the plurality of lines having an interval in the second direction that is smaller than a minimum ejection frequency of each of the multiple nozzles.

8. The control method according to claim 6, wherein:

the timing control data are defined for each of a plurality of lines defined on the medium, each of the plurality of lines extending in a first direction that is
5 orthogonal to a second direction in which the medium is conveyed relative to the inkjet head, the plurality of lines having an interval in the second direction that is smaller than a minimum ejection frequency of each of the multiple nozzles;

10 the drive waveform is only generated in step e) at lines which include at least one of the target pixels; and

the ejection data is transferred in step d) only at lines which include at least one of the target pixels and at which the ink droplets are ejected based on ejection data
15 different from previously transferred ejection data.

9. The control method according to claim 6, further comprising the steps of g) generating a data-rotation instructing signal in accordance with the timing control data, and h) rotating ejection data between the register and
20 a storage register in accordance with the data-rotation instructing signal.